

Solar Bulletin

THE AMERICAN ASSOCIATION OF VARIABLE STAR OBSERVERS - SOLAR COMMITTEE

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April 2005

Table I. American Relative Sunspot Numbers (Ra) for April 2005 [boldface = maximum, minimum]

Day	N	Raw Mean	Ra
1	33	19	13
2	33	33	24
3	34	40	30
4	37	48	35
5	40	54	39
6	37	43	31
7	29	37	27
8	35	36	26
9	43	41	30
10	41	33	24
11	38	22	15
12	39	34	24
13	39	43	32
14	44	49	36
15	46	47	34
16	40	41	30
17	38	40	27
18	40	40	28
19	44	33	24
20	32	34	24
21	43	23	16
22	37	20	15
23	32	16	11
24	36	7	4
25	32	14	10
26	39	18	12
27	39	29	20
28	34	45	32
29	35	51	37
30	30	52	36
31	---	---	---

Table II. April 2005 Observers

16 AAP P.Abbott	23 MCE E.Mochizuki
24 ARAG G.Araujo	25 MMI M.Moeller
4 ARE R.Allessi	13 OBSS IPS Observatory
17 BARH H.Barnes	17 RICE E.Richardson
11 BATR R.Battaiola	24 RITA A.Ritchie
13 BERJ J.Berdejo	18 SCGL G.Schott
12 BLAJ J.Blackwell	6 SCHG G.Scholl
13 BMF M.Boschat	2 SDP D.Sharpley
16 BOSB B.Bose	8 SIMC C.Simpson
29 BRAB B.Branchett	18 STEM G.Stemmler
27 BRAR R.Branch	27 STQ N.Stoikidis
28 BROB R.Brown	25 SUZM M.Suzuki
22 BVK K.Bankston	28 SZAK K.Szatkowski
7 CAMP P.Cambell	25 SZUM M.Szulc
28 CHAG G.Morales	25 TESD D.Teske
26 CKB B.Cudnik	12 THR R.Thompson
8 CLZ L.Corp	21 TJV J.Temprano
17 COMT T.Compton	26 UREP P.Urbanski
30 CR T.Cragg	18 VARG A.Vargas
21 DEJV J.van Delft	20 WILW W.Wilson
9 DEMF F.Dempsey	21 YESH H.Yesilyaprak
18 DGP G.Dyck	
17 DRAJ J.Dragesco	
25 DUBF F.Dubois	
16 FEEC C.Feehrer	
24 FLET T.Fleming	
26 FUJK K.Fujimori	
13 GOEM M.Goetz	
7 HAYK K.Hay	
16 HRUT T.Hrutkay	
23 JAMD D.James	
10 JEFT T.Jeffrey	
18 JENJ J.Jenkins	
22 KAPJ J.Kaplan	
20 KNJS J&S	
2 KROL L.Krozel	
15 LARJ J.Larriba	
4 LERM M.Lerman	
23 LEVM M.Leventhal	
13 MARE E.Mariani	
27 MARJ J.Maranon	

Reporting Addresses

Sunspot Reports -- email: solar@aaavso.org
postal mail: AAVSO, 25 Birch St. Cambridge, MA 02138
FAX (AAVSO): (617) 354-0665

SID Solar Flare Reports -- email: noatak@aol.com
postal mail: Mike Hill
114 Prospect St. Marlboro, MA 01752

Means: **37.3** **34.8** **24.9**

Total No. of Observers: 62

Total No. of Observations: 1119

Table III. Means of Raw Group Counts (RG) and Ratios of Spots to Groups (S:G) in April 2005

Day	RG	S:G	Day	RG	S:G	Day	RG	S:G	Day	RG	S:G
1	1.6	2.2	9	3.0	3.9	17	2.8	4.4	25	1.1	3.2
2	2.4	4.1	10	2.4	4.1	18	2.8	3.9	26	1.1	5.9
3	2.9	4.2	11	1.6	4.6	19	2.5	3.3	27	1.6	7.9
4	2.9	6.3	12	2.3	4.5	20	2.7	2.6	28	2.2	10.8
5	3.5	5.3	13	3.2	3.5	21	2.0	1.5	29	2.6	9.7
6	3.1	3.8	14	3.5	4.0	22	1.7	1.8	30	2.3	12.8
7	2.8	3.5	15	3.5	3.7	23	1.4	1.5	31		
8	2.7	3.6	16	3.0	3.9	24	0.6	1.8	Mn.	2.4	4.5

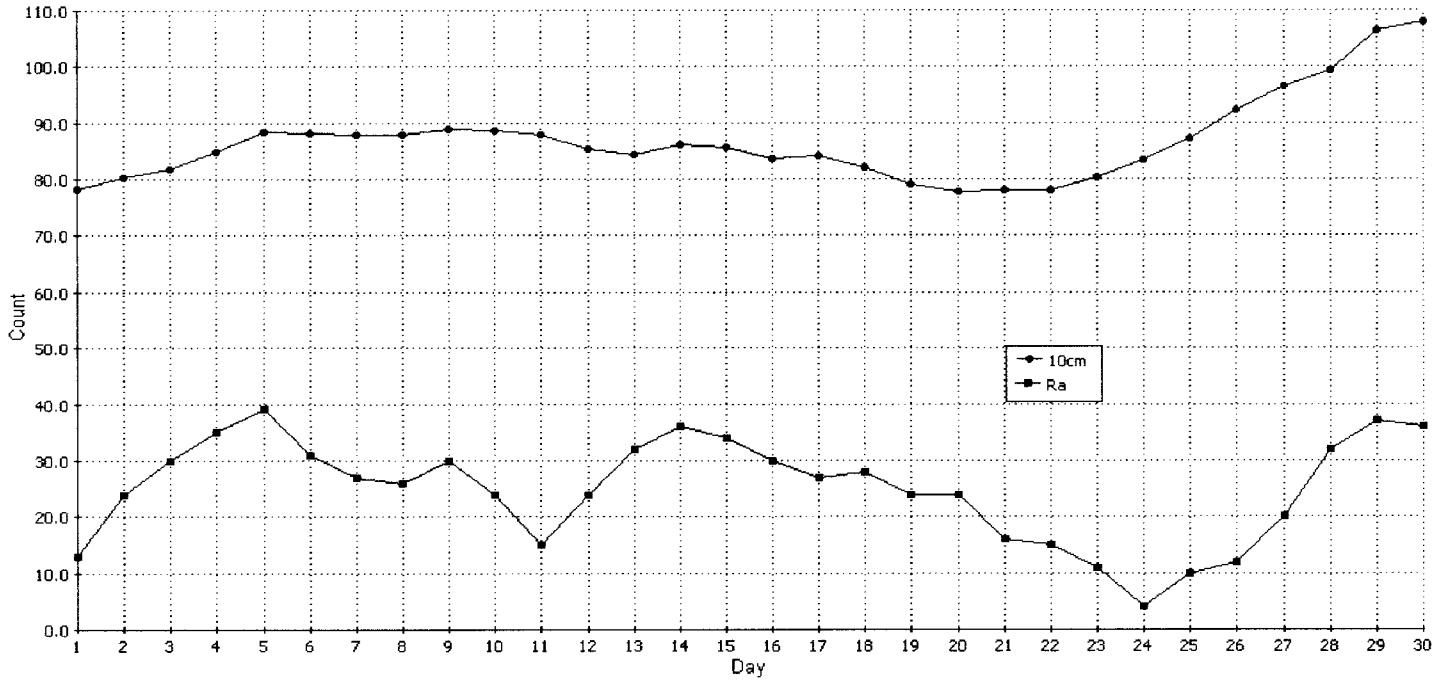


Fig. 1. 10 cm Solar Flux and American Relative Sunspot Numbers (Ra) for April 2005.
10 cm source: <http://www.drao.nrc.ca/icarus>

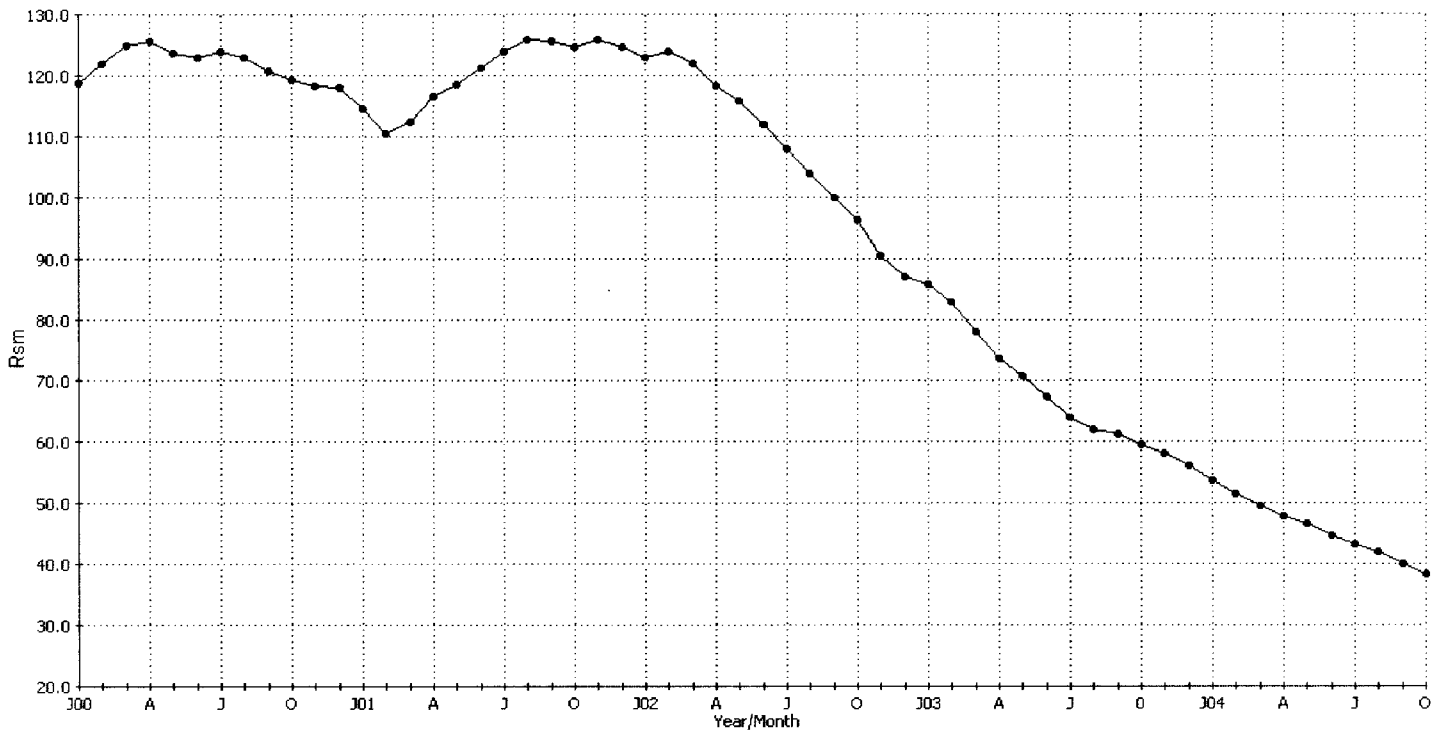
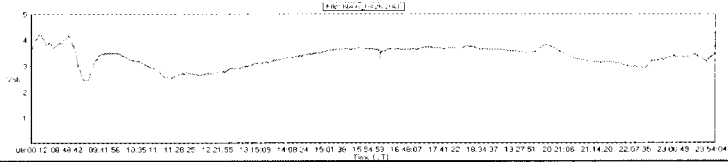


Fig. 2. Smoothed Mean Sunspot Numbers (Rsm) from January 2000 to October 2004 (Waldmeier Method).

Sudden Ionospheric Disturbance Report

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Sudden Ionospheric Disturbances (SID) Recorded During April 2005

(Analysis performed by Michael Hill, SID Analyst)

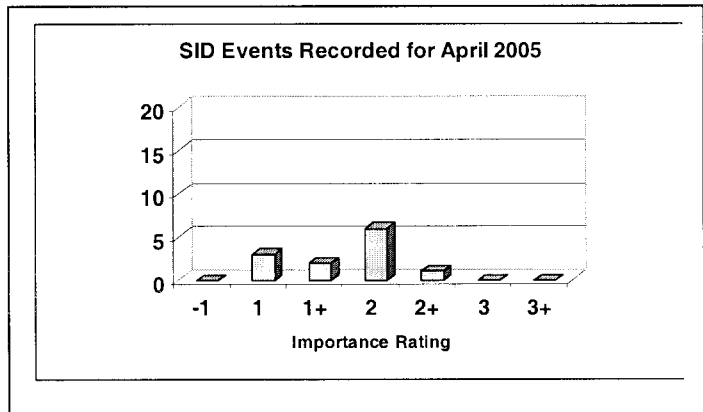
Date	Max	Imp	Date	Max	Imp	Date	Max	Imp
050405	2006	1+						
050406	0602	2						
050410	1804	2+						
050410	1813	1+						
050412	1721	2						
050416	1632	2						
050417	0143	1						
050417	2107	2						
050426	0443	2						
050426	2004	2						
050429	2043	1						
050430	1827	1						

Importance rating : Duration(min)	1-: <19	1: 19-25	1+: 26-32	2: 33-45	2+: 46-85	3: 86-125	3+: >125
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The events listed above meet at least one of the following criteria

- 1) Event reported by two or more observers within ± 5 minutes
- 2) Event matched to GOES-8 XRA event to within ± 15 minutes and event time < 1000 UT
- 3) reported by observer with a quality rating > 8 (scale 1-10)

Observer	Code	Station(s) monitored
A Clerkin	A29	NAA NAU
J Winkler	A50	NAA NML
M Hill	A87	NAA
J Mandaville	A90	NPM
T Poulos	A95	NAA
J Wallace	A97	NAA
M King	A99	HWU
P Campbell	A100	NLK
F Steyn	A102	NWC
P Mortfield	A108	NAA
M Suhovecky	A115	NAA



Solar Events

April was a very slow month for SID detection but there was a bit of activity resulting in 12 correlated SID events. There were only 133 X-Ray flare events recorded by the GOES-12 spacecraft, and of these, only 16 were M-Class events. The rest were C-Class events. The peak of activity was towards the end of the month and indeed, as we are seeing this month, this was a precursor to a much more active period. Thanks to all of you who are hanging in there as the solar minimum approaches. Your observations, as always, are valuable to the program. We have one new observer this month; Mark Suhovecky (A-115) contributed his first report this month. Mark lives in Indiana and is monitoring NAA in Cutler Maine. Welcome to the group from all of us.

